DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023256 Address: 333 Burma Road **Date Inspected:** 29-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes An Qing Xiang, Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the Self-Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG TA YARD, Segment 13AE

This QA Inspector performed verification Ultrasonic Testing (ABF Request No: UT-13E-037R1) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as the weld between bottom panel to side panel (hold back) area at intersection of OBG segment 13AE to 12CW. The weld designations were as follows:

SEG3007AC-011 (BP to SP, E14)

TA YARD, OBG 14E (NWIT # 08978)

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

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SEG3019U-013 SEG3019AX-005, 006, 011, 015, 016, 020, 021

TA YARD, OBG 14E (NWIT # 08980)

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designation reviewed was as follows.

SEG3019BB-133

This Quality Assurance (QA) Inspector observed the following work in progress:

TA YARD

OBG Seg 14W:

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AE-096, 089 and 078 [I-rib on Deck Panel (DP) to Edge Panel (EP), Complete Joint Penetration (CJP) weld at Panel Point (PP) 125.5]. The welder is identified as 067949 and was observed welding in 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020AF-017, 024 and 037 [I-rib on DP to EP, CJP weld at PP 126.5]. The welder is identified as 066695 and was observed welding in 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020AH-004 [Side Panel (SP) to EP, CJP weld]. The welders are identified as 066881 and 066421 and were observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AH-002 [Side Panel (SP) to EP, CJP weld]. The welders are identified as 066361 and 037932 and were observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020AV-007 [Block out bottom plate sub assembly (SA) 3416A to block out bottom plate sub assembly SA 3416C, CJP weld at Panel Point (PP) 128.7]. The welder is identified as 037748 and was observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-B-U2-FCM-1.

OBG 14E

During a random in-process visual inspection of OBG member identified as segment 14E, this QA observed an arc strike on piece mark identified as Floor Beam (FB) 3262A. This QA marked the affected area and informed ZPMC

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Quality Control (QC) indentified as Mr. Lv Li Qing of this issue. Mr. Lv Li Qing informed this QA that the arc strike would be corrected in a manner compliant with the contract documents. See attached photograph for further details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer